

## PROCEEDINGS OF LEARNED SOCIETIES.

## GEOLOGICAL SOCIETY.

November 21, 1888.—W. T. Blanford, LL.D., F.R.S.,  
President, in the Chair.

The following communications were read:—

1. "Notes on the Remains and Affinities of five Genera of Mesozoic Reptiles." By R. Lydekker, Esq., B.A., F.G.S.

This paper was divided into five sections. In the first the Author described the dorsal vertebra of a small Dinosaur from the Cambridge Greensand, which he regarded as probably identical with the genus *Syngonosaurus*, Seeley. Reasons were then given for regarding this form as being a member of the Scelidosauridæ, stress being laid on the absence of a costal facet on the centrum.

The second section described an axis vertebra from the Wealden of the Isle of Wight, which is evidently Dinosaurian, and may possibly belong to *Megalosaurus*. It is remarkable for exhibiting an intercentrum on its anterior aspect, and also for the absence of ankylosis between its centrum and that of the atlas.

In the third section the femur of a small Iguanodont from the Oxford Clay, in the possession of A. R. Leeds, Esq., was described. This specimen agrees with *Hypsilophodon* and *Camptosaurus* in its pendent inner trochanter, and it was referred to the latter genus as *C. Leedsi*. It is also considered to be closely allied to *Iguanodon Prestwichi*—the type of *Cumnoria* of Seeley—which is also considered to belong to the American genus. The name *Camptosaurus valdensis* was applied to an allied form from the Wealden; and the name *Cryptodraco* proposed to replace *Cryptosaurus*.

The imperfect skeleton of a Sauropterygian from the Oxford Clay near Bedford, which formed the subject of a previous communication, was redescribed. This specimen was identified with *Plesiosaurus philarchus*, Seeley, which it was proposed to refer to a new genus under the name of *Ploneustus*. This genus was shown to be allied to *Pliosaurus*, and to be represented by forms in the Kimmeridge Clay which have been described as *Plesiosaurus equalis* and *P. stenodirus*. It was also compared with the genus *Thaumatosaurus*, Meyer, from which *Rhomalcosaurus* of Seeley was considered inseparable. Some remarks were added on other Sauropterygians; and it was proposed to adopt the name *Cimoliosaurus* for all the forms having a pectoral girdle of the type described under the names of *Elasmosaurus* and *Colymbosaurus*, and with single costal facets to the cervical vertebrae.

The paper concluded with a notice of the affinities of the Crocodylian genus *Geosaurus*. This form was shown to be closely allied to *Metriorhynchus*, both being characterized by the absence of dermal scutes and the presence of bony plates in the sclerotic. It was also shown that some of the species of *Cricosaurus* belong to the former genus; while there appear to be no grounds by which *Dacosaurus* (*Plesiosuchus*) can be separated from the same.

2. "Notes on the Radiolaria of the London Clay." By W. H. Shrubsole, Esq., F.G.S.

Microscopical examination of the London Clay of Sheppey and elsewhere has afforded proof of the existence of a Diatomaceous zone near the base of the formation. The formation of a well for the Queenborough Cement Company in 1885 was the means of furnishing a laminated clay with glittering patches of Diatoms from a depth of 225 feet. In this were also found fairly good pyritized specimens of Radiolaria, some of which were submitted to Prof. Ernst Hæckel, who found a large number of fragments of Tertiary Radiolaria, but few well-preserved specimens appertaining to the families Sphæroïdeæ, Discoïdeæ, and Cyrtoidæ, and apparently identical with those described from the Tertiary Tripoli beds of Grotte. No new species occurred among the recognized forms.

Sketches made by Mr. A. L. Hammond were also submitted to Prof. Hæckel, who stated that these forms were not identical with any known species, recent or fossil.

The Author described the following new species:—*Cornutella Hammondi*, *Spongodiscus asper*, and *Monosphæra toliapica*.

The specimens were preserved in iron-pyrites.

Some Tetractinellid sponge-spicules from the washings were recognized by Professor Sollas.

3. "Description of a new Species of *Clupea* (*C. vectensis*) from Oligocene Strata in the Isle of Wight." By E. T. Newton, Esq., F.G.S.

A number of small fishes found by Mr. G. W. Colenutt, of Ryde, during his investigations of the Oligocene strata of the Isle of Wight, in beds belonging to the "Osborne Series," were described as belonging to a new species of *Clupea*. The specimens vary in length from 20 to nearly 60 millim. In all of them the head is much broken; but the rest of the body is beautifully preserved, showing most distinctly the vertebral column, ribs, fins, tail, and ventral spines. The single dorsal fin has its front rays about midway between the tip of the snout and the base of the tail, the ventral fins being immediately under the front of the dorsal and about midway between the pectoral and anal fins. The anal fin commences about halfway between the ventral fins and the base of the tail, occupying about two thirds of that distance, and the tail is deeply forked. The scales are thin and in most cases much broken; while the ventral region of the body is armed with a row of strong spines. The spinal column contains about 40 vertebræ, of which 14 or 15 are caudal. The bones of the head are mostly broken, but those of which the outline can be traced agree with the corresponding parts of the Sprat.

These fishes are referred to the genus *Clupea*; but although very closely allied to the Common Herring and Sprat, the relative positions of the dorsal and ventral fins, as well as the number of vertebræ, prevent their being placed in any known species either recent or fossil, and they are therefore regarded as a new form and named *Clupea vectensis*.